

Grant Solicitation PON-09-007:

Reducing the Environmental Impact of Solar Energy

Public Workshop
January 28, 2010

Introductions

PIER



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- Conduct research to advance science or technologies of value to CA that is part of full range of research, development, and demonstration activities not adequately provided for by competitive and regulated markets.
- Environmental Area – to evaluate and resolve impacts from energy generation, transmission and use.

PON Purpose and Background



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- Several unresolved issues re: analysis and mitigation of biological impacts from large scale solar developments
- There are several applications for solar developments in the Mojave and Colorado Deserts
- Need alternative and innovative mitigation to off-set loss of habitat and other on-site impacts
- There is a lack of detailed information on plant and animal distribution and science-based thresholds for population viability analyses.
- Up to \$1M available
- Award Range: \$150,000 -\$1M
- Purpose of this workshop is to answer questions on process

PON Objective is to investigate one or more of the following:



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- Innovative mitigation strategies other than land acquisition that would effectively offset the negative impacts of California solar energy development on special-status species and sensitive plant communities; and/or rigorous validation of and/or improvements to frequently recommended mitigation measures (for example, habitat restoration, fencing).
- New or enhanced habitat suitability models that help to: predict the distribution of special-status plants and animals and sensitive plant communities within the Mojave and Colorado Desert regions; evaluate the impact of solar energy technologies, plant designs, and/or solar project site selection on special-status plants and animals and sensitive plant communities; and provide planning tools to assist in the siting, design, permitting, and mitigation of solar energy projects.

PON Objective is to investigate one or more of the following:



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- An improved impact assessment on species abundance and viability of relocating desert tortoise and/or other special-status plants and animals away from solar energy sites using currently established protocols; and/or develop improved protocols for relocation.
- Numerical thresholds for viability of listed species populations (i.e., minimum viable population size) in regions within the Mojave and Colorado Desert regions targeted for utility scale solar energy development.
- A new or improved framework for conducting cumulative impacts analysis of solar energy development on sensitive biological resources.

Two Phase Process



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- **Phase I**
 - **Abstract (max 8 pages)**
 - **Pass/Fail**
 - **Scoring criteria in Attachment G**
 - **Project Summary**
 - **Targeted Research**
 - **Categorical Budget**
 - **Match Funding**
 - **Proof of Technical Feasibility, Reliability and Safety**
 - **Site for Proposed Research**
 - **Permitting Activities - prior or planned work related to permitting energy projects in the desert**

Two Phase Process



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- **Phase II**
- **Limit proposal to 50 pages**
 - **Cover page**
 - **Exec summary**
 - **Project Narrative**
 - **Statement of Work**
 - **Resumes and Background experience**
 - **Budget**
 - **Schedule of Products and Due Dates**
 - **California Based Entity Preference Points – See Att. J**
- **Do not submit confidential information**

Phase II Scoring



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7 Criteria:

- Addresses specific research area
- Uses robust methodology and clear objectives
- Project description, deliverables, due dates are reasonable
- Budget is reasonable
- Personnel qualified
- Overall technical merit
- Match funding

Forms Required



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- **Proposal Cover Page (Attachment A)**
- **Statement of Work (Attachment B)**
- **Budget Workbook (Attachment D)**
- **Schedule of Products and Due Dates (Attachment E)**
- **CBE Preference Points Questionnaire (Attachment J)**

Schedule



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Release of Program Opportunity Notice & Application Manual	January 19, 2010
Pre-Proposal Workshop	January 28, 2010
Deadline to Submit Stage 1 Questions	February 2, 2010
Post Stage 1 Questions and Answers to Website	February 18, 2010
Deadline to Submit Stage 1 Proposals	March 3, 2010 4:00 p.m.
Interview Applicants (if necessary)	March 16, 2010
Announcement of Stage 1 Results	March 23, 2010 (estimated)
Deadline to Submit Stage 2 Questions	March 30, 2010
Post Stage 2 Questions and Answers to Website	April 8, 2010
Deadline to Submit Stage 2 Proposals	April 21, 2010 4:00 p.m.
Interview Applicants (if necessary)	May 20, 2010
Post Notice of Proposed Award	June 17, 2010 (estimated)
Approval of Awards at Energy Commission Business Meeting	October 17, 2010 (estimated)

Questions